

ABSTRACT

Flame retardant thermoplastic polyurethane (TPU) compositions are disclosed having melamine cyanurate as the only organic flame retardant additive. Processes are disclosed to make the TPU compositions and to make wire and cable constructions having the TPU compositions as the jacket of the wire and cable constructions.

The TPU compositions have excellent physical properties and are capable of passing both the UL-1581 section 1080 and UL-1581 section 1080, subject 758, section G tests for wire and cable constructions.

The levels of melamine cyanurate used in the TPU compositions are from about 28 to about 50 weight percent of the TPU composition. The ultimate tensile strength of the TPU composition is greater than 1500 psi and preferably greater than 2900 psi. The TPU compositions also have both a low LOI % and a low peak rate of heat release.